COMMUNITY NUTRITION RESEARCH

MAKING IT RAPID, RESPONSIVE, AND RELEVANT

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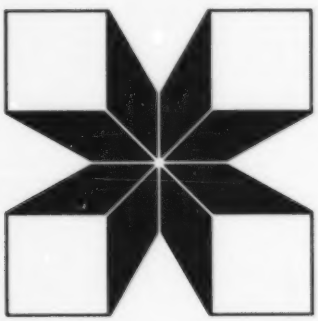

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Esta serie incluye ponencias de reuniones, informes internos y documentos técnicos que pueden posteriormente conformar la base de una publicación formal. El informe recibe distribución limitada entre una audiencia altamente especializada.

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Community Nutrition Research

Making it Rapid, Responsive, and Relevant

Edited by
Jenny Cervinskas and Richard H. Young

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Foreword

This publication is based on a workshop, organized and sponsored by the International Development Research Centre (IDRC) at the 14th International Congress of Nutrition (ICN), held in Seoul, Korea in August, 1989. The workshop examined research methods available to rapidly and effectively generate information on community nutrition problems and which could be used as a basis for community participation.

The promotion of locally-based problem identification and design of key interventions for improvement forms the basis of IDRC's nutrition programming. The results of the research identified and supported by IDRC should lead to nutrition planning procedures that combine national priorities and community needs. Qualitative approaches to nutrition problem identification, while attracting increased attention, are still in their infancy and require further development. IDRC is anxious to contribute to the development of such community-based approaches. The Seoul workshop was organized in view of this interest to further disseminate knowledge and experiences in the area, and to encourage efforts to improve the methodologies.

Several plenary speakers at the 14th ICN emphasized three important aims in terms of redirecting future nutrition research to more adequately address the needs of the poor and malnourished. These are:

- Encouraging peoples' participation in nutrition research;
- Establishing interdisciplinary nutrition projects; and
- Ensuring sustainability of nutritional improvement.

A characteristic common to successful community development projects is the early identification and subsequent satisfaction of peoples' perceived needs. The integration of needs and wants analysis and community participation with development work represents a challenge for the design and application of research.

Rather than relying on quantitative survey techniques for problem definition, the methods reviewed at the workshop are essentially qualitative and responsive to community perspectives. It is felt that the methods have potential for building a viable framework for integrated, multidisciplinary projects. Some of these research methods have been borrowed and adapted from farming systems and natural resource management programs, and others from community health care programs. However, they have considerable potential for wider use in nutrition problem identification, policy formation and program evaluation. In particular, the methods should offer rapid and reliable means of assessing the nutritional consequences of economic, political and agricultural change. Given the recent implementation of structural adjustment

policies in several developing countries, there is a need to evolve improved methodologies for signalling the effects of such adjustments on human wellbeing, and for guiding compensatory measures to sustain nutrition and health.

At the Seoul workshop, speakers from Guatemala, India, Indonesia, Thailand, and Canada shared their expertise and experiences in nutrition problem assessment at the community level. The ensuing discussions benefitted from the participation of other community researchers who attended the workshop. This short collation of papers and summary of the workshop discussions is intended to create further awareness of participatory methods which have been used in nutrition research and to provide some guidance on the role of such methods. As such, the publication should be of value to community nutrition researchers, donor agencies and policymakers concerned with nutritional improvement in the developing world.

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Community-based Research: Setting the Scene

Jenny Cervinskas is a program officer in IDRC's Health Sciences Division.

The Relevance of Research

Research strategies and methods are the focus of this publication - in particular, a community-based strategy through which food and nutrition problems are defined and analyzed so that plans to alleviate malnutrition will be relevant. The absolute numbers of the hungry in the world are now estimated to be at their highest level ever. There is a tremendous amount of research being undertaken in all corners of the globe, on every conceivable aspect of nutrition. How much has this research contributed to development and to improving the lives of the malnourished?

We in the scientific and academic communities (and in donor agencies that support development) must ask what can be done - and must act on the answers to ensure that nutrition-related research improves well-being. Too often, nutrition research has not been action-oriented. When the needs are so great and the resources so few, one can only wonder why. I believe the reasons include the following:

• *Academic orientation*

Those who define the problem and research it are usually far removed from it, both spatially and intellectually. Researchers may not be living the reality of those affected by malnutrition.

• *Academic bias*

The demands of the academic milieu may pull researchers away from practical work to more exotic endeavours. Academics often choose (or are pressured to choose) research that has a high probability of being published in peer-reviewed, scientific journals. Such work may be necessary to advance a researcher's academic career, open doors for invitations to conferences and satisfy institutional demands that lead to promotions and tenure. However, it may do little to advance nutritional health.

• *"Roadside" development*

Research may be conducted in easily accessible areas to control travel costs and to simplify logistics. This means that the problems of those who are usually most in need (i.e. the isolated, the "poorest of the poor") may be neglected.

• *Human resources*

There is a shortage of properly trained human resources. Nutrition researchers must have skills and knowledge that are not widely available, especially in the developing countries which already lack trained nutritionists, food scientists, agriculturalists, and social scientists.

• *Discipline orientation*

Malnutrition has multiple causes and thus needs an integrated approach to its investigation and solution. Research questions often neglect broader issues in favour of the disciplinary perspective and world view of the principal investigators and the institute to which they are affiliated. In addition, the

selection of nutrition research topics along sectoral or disciplinary lines reflects a historical tradition in which each discipline maintains its own professional sphere of influence. Collaboration with others is not the norm.

• *Conceptual models*

Finally, many researchers are daunted by the complex interaction between the many contributing causes of malnutrition. The prospect of developing a comprehensive approach that integrates the variety of causative factors often seems impossible. The demands of data collection, fieldwork and data analysis and interpretation may further intimidate. In the face of such a challenge, it is not surprising that individuals tend to concentrate on research stemming from the security of their circle of knowledge.

New Research Approaches

Over the past decades, the debate about how to confront malnutrition has been an energetic one, and much technical expertise and creativity has been applied in trying out different approaches to improve nutritional status. The development of a comprehensive approach was spurred by the fact that, in the 1970s and 1980s, researchers were forced to acknowledge the failure of nutritional interventions and the limitations of the traditional models underlying research. As a result, they began to explore new areas of experience and literature and to accept the need to work with, and learn from, professionals from other disciplines. Biomedical and agricultural scientists suddenly expressed an interest in the social sciences and the theory and practice of adult education; communications, marketing, anthropology, and economics also provided valuable tools and strategies. At the same time, workers in these fields demonstrated the relevance of their expertise and perspective to research and interventions on health and nutrition. The terms "community participation" and "participatory research" soon became commonplace, challenging not only policymakers and program planners to look more closely at the role of community members in intervention activities: but, also, challenging researchers to question the assumptions on which their research studies were based.

Notable research activities include:

- The development of Rapid Rural Appraisal (RRA) by researchers working in farming systems and rural development in the late 1970s. RRA is not only a set of methods used to learn more about people and the context of their lives, but also embraces a philosophy based on putting people first (Chambers 1986; Khon Kaen University 1987, 1988).

- The Rapid Assessment Procedures (RAP) developed in the early 1980s to apply anthropological methods to help fieldworkers and program planners improve the effectiveness of primary health care programs. RAP has been used and adapted for a variety of purposes including family planning, AIDS, epilepsy, leprosy, diarrhoeal disease and problems of the elderly (Scrimshaw and Hurtado 1987).

- Developments in the field of adult education and community development and the debate surrounding participatory research and its application. One of the main principles that has emerged from the theory and practice of adult education is that people have a body of knowledge and wisdom that has its own validity and reality even though it may not be similar in content or expression to the kind of "knowledge" given value and prestige by educated elites or power groups (Tandon 1982; Rahman 1985; Oakley 1989).

- The application of social marketing practices and research methods to the health field, particularly to the areas of family planning, the control of diarrhoeal disease and infant and young child feeding (Manoff 1985).

- The research approach used to study the dietary management of diarrhoea and to design nutrition education programs to promote feeding during diarrhoea (Brown and Bentley 1987; Griffiths et al 1988).

Although they follow different paths and are often motivated by different purposes, these clusters of research activity share two basic tenets: that the voices of the malnourished need to be heard and that researchers need to readjust their view of reality. In addition, community-based nutrition research is conducted according to five basic principles:

- The knowledge of the community is valid and must be made known.

- Because food and nutrition problems have multiple causes neither an exclusively biomedical approach nor an effort aimed only at increasing agricultural production will succeed on its own.

- Community members must be drawn more actively into research.

- Investigating teams should be multidisciplinary and may include community members.

- An eclectic mix of research methods should be used, including both quantative and qualitative methods.

In community-based approaches to research, the overriding goal must be the improvement of the lives of the people who are the subjects of the research. Such research is action-oriented and aims to promote change. This refocusing of research on the community is rooted in the belief that, because the nutritional problems manifest themselves in the community, the community is also the place where the problem should be defined and analyzed.

Rapid Methods for Identifying and Analyzing Food and Nutrition Problems

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Although remarkable increases in food production have been achieved over the past decades in both developing and developed countries, the number of hungry people has increased because of the growth in population and the lack of effective, equitable food distribution systems. The food chains and food webs for all creatures are increasingly vulnerable as human beings manipulate, on an unprecedented scale, the ecosystem of this biosphere. Humans eat food to sustain life and, thus, reap benefits from complex and interlocking processes that begin with transfer of energy from the sun and move through production and distribution of foods to the uptake of nutrients by cells in the body. Ecological degradation (the greenhouse effect, acid rain, erosion, deforestation), inefficient distribution and unequal access to foods, ignorance, harmful food taboos or habits, and disease outweigh efforts to improve production by means of science and technology; distribution by social and economic systems; consumption by modification of cultural and food habits; and health by medicine, surgery and biochemistry (Fig. 1). Interventions are usually confined by discipline and are not always focused on betterment of the community.

Thus, the challenge to food security for the next decade and century is rooted in unequal purchasing power and rapid environmental deterioration. To cope with the challenge, we as researchers, policy makers and, simply, members of society, have to assess the complex links from production to good nutrition and formulate strategies for effective interventions involving many disciplines. However, food and nutrition research is often fragmented. Also, it is usually deductive and based on disciplinary theories that do not address the issues facing humankind. The challenge is to create methods and institutions that are more relevant, multidisciplinary, and comprehensive. At present, we have a collection of disciplinary subunits with a reward structure that favours disciplinary performance and penalizes interdisciplinary collaboration. Rapid rural appraisal (RRA) and rapid assessment procedures (RAP) are examples of approaches that are responsive to this challenge. The purpose of this paper is to give an overview of RRA, and discuss the similarities and differences between RRA and RAP, and their applications for community-based identification and analysis of food and nutrition problems.

Rapid Rural Appraisal

RRA has its origin and application in rural development-related research. In the late 1970s, a workshop, followed by a conference, held at the Institute of Development Studies, University of Sussex, fostered the emerging methodology, which aimed at improving the cost-effectiveness, timeliness, and quality of research for rural development. RRA is described by Grandstaff et al (1987) as a process of learning about rural conditions in an intensive, iterative, and expeditious man-

ner; earlier, they had classified RRA as any systematic activity designed to draw inferences, conclusions, hypotheses, or assessments from new information acquired in a limited time (Grandstaff and Grandstaff 1985). RRA characteristically relies on small multidisciplinary teams that employ a range of techniques selected to enhance understanding of rural conditions.

Emphasis is on tapping the knowledge of local inhabitants and combining the knowledge with modern scientific expertise. Relevant and accurate information can be accumulated with little time and money by rapid cycles of interaction among team members and refinement of the techniques to collect data (i.e., observations, questionnaires and semistructured interviews). RRA emphasizes flexibility and judicious judgment so that methods can be creatively modified where appropriate.

RRA activities include three broad stages (Grandstaff et al 1987):

- Preparatory work including the selection of a multidisciplinary team, retrieval of background information, team members' definition and clarification of hypotheses, and the selection of research tools and techniques.

- Field visits - one or many - to the study areas.

- Wrap-up in which team members discuss and analyze the findings, reach a consensus on what has been learned and what is still unclear, and write up the results before loss of valuable information and insight.

RRA has been used to investigate, identify, and diagnose food and nutrition problems in rural areas and to evaluate nutrition programs and projects. For example, RRA was used to study the natural food sources in the daily diet of families in rural northeast Thailand during the rainy season (Somnasaeng et al 1984). Tripp (1984) depended on RRA to assess targeting of nutrition programs and identify weaknesses that allowed privileged minorities to capture large and disproportionate benefits. The data collected during RRA have given emphasis to seasonal shortages of food, intrafamily food distribution, women's roles and the so-called minor crops, all of which had frequently been neglected by conventional research (Gibbs 1987).

Similarities and Differences between RRA and RAP

RRA in rural development-related research and RAP for primary health care and nutrition research share a new paradigm that rests on the view of the world as a highly interactive and rapidly changing system. The balance and interaction between indigenous perspectives and outside or "expert" perspectives - what anthropologists refer to as the emic vs etic perspectives - is also recognized. Both methodologies focus on the cultural, traditional, and social factors involved in problems as well as indigenous knowledge. They both apply inductive more than deductive reasoning - that is, they start from "facts" and look for generalizations. They also respond to a yearning for cost-effective, timely field research; to resource limitations (i.e., scarcities of skilled personnel, budgets, and time); and to the limitations of conventional surveys based solely on observations.

RRA and RAP both include systematic methods of obtaining new information in a relatively short period, using semistructured interviews, focus-group discussions, and direct observations. The interviewees are not necessarily chosen randomly and are often the key informants within the community, such as monks and village elders. These people can supply reliable, direct information in less time than the populace. The data and

opinions inform the solutions so that the local people can accept designated interventions. Both RRA and RAP use a problem-focused approach as a tool for diagnosis and evaluation. They complement cross-sectional and longitudinal studies, supplying plausible explanations rather than just statistical relationships. However, both RRA and RAP are inappropriate where statistical representativeness, which requires data based on random sampling, is an important issue. The information they provide is at best indicative and can be helpful in formulating working hypotheses; they are not adequate substitutes for careful and detailed investigations.

Despite their similarities, RRA and RAP are entirely independent, with important differences. RRA is more interdisciplinary, adopting techniques from sociology, anthropology, geography and journalism, whereas RAP is mainly anthropological and is employed as a rapid assessment of human behaviour. RRA is a triangulated approach that seeks different perspectives from team members who are from various disciplines. This characteristic, to some extent, answers the criticism that an inductive approach is inappropriate because the "facts" are observed with disciplinary biases and there are no "pure" observers. The team members bring many disciplinary perspectives to the analysis. Also, RRA is highly iterative so that the method allows the abandonment of any hypotheses that become inappropriate during the research as well as the formulation of more appropriate hypotheses based on newly acquired information.

RAP focuses on specific issues or problems for assessment but does so in a holistic manner, balancing indigenous and expert views - the scientific and cultural. Moreover, RAP may be action-oriented, with the aim of improving life for people in the community.

Conclusion

In sum, both RRA and RAP are tools for collecting desirable information in a relatively short period. Their advantages over conventional surveys include their holistic perspective for flexibility, which provides opportunities for multidisciplinary cooperation. In my opinion, they will remain beneficial and unique as long as they do not become too standardized. They must remain developmental, based on information acquisition that enables diversity to grow and, thus, knowledge to be discovered and refined. I also believe both must avoid becoming the objects of unrealistic expectations because they are not a research panacea.

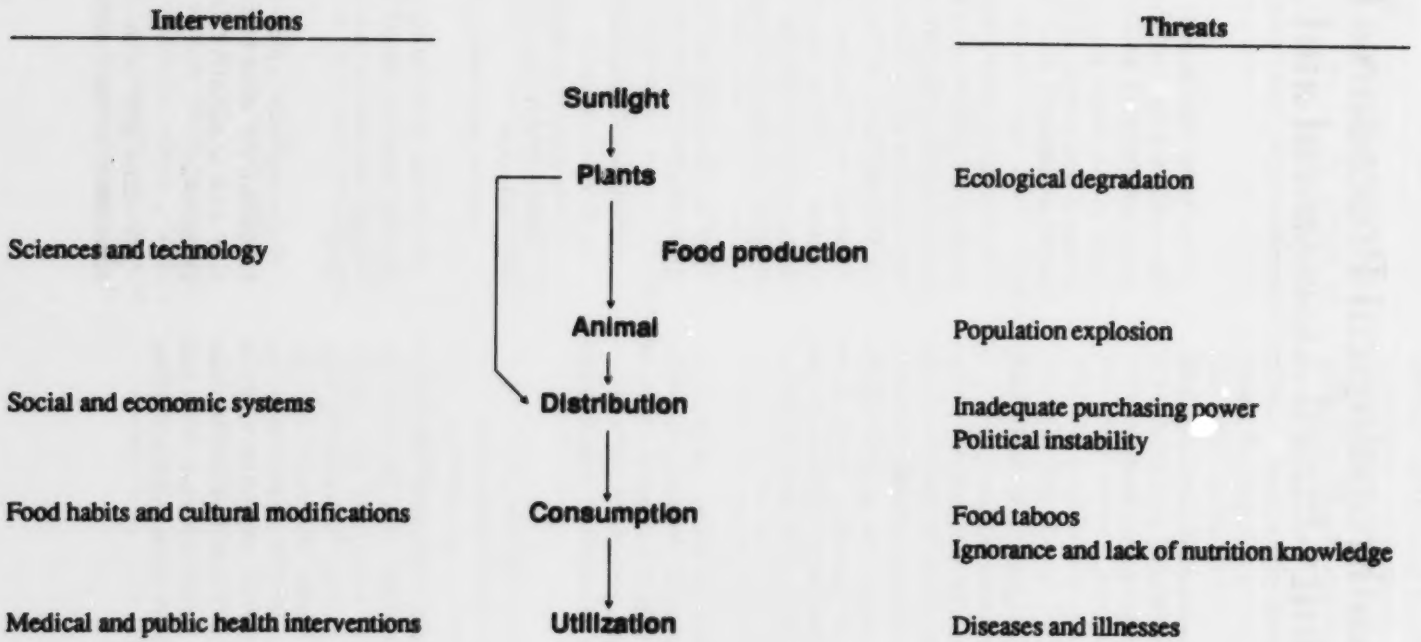

Fig. 1. Threats and interventions to the nutrition food system.

Rapid Anthropological Procedures for Community-based Assessment and Analysis

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Social anthropologists have traditionally spent many months and years gathering indepth information on local cultures in alien settings. It is only recently, as the value of community sociocultural information is increasingly appreciated, that anthropologists have applied their theoretical perspectives and methods to the design, implementation and evaluation of health and nutrition programs.

This paper will address the nature and characteristics of the rapid anthropological procedures (RAP); the uses and applications of RAP, both current and potential; and the relation between participatory research and RAP.

What is RAP?

RAP is a set of anthropological information collection techniques that provides researchers, social scientists and health workers with guidelines for assessing local conditions and needs; the knowledge, attitudes and practices of the community; opportunities for intervention; and the effects of different programs (Scrimshaw and Hurtado 1984). RAP is a means for assessment and analysis based in the community, and not an end in itself.

(The term "community" can be used to describe a group of people living in a geographically or sociopolitically defined area; in the target area of a program; or a group of people with some common trait, interest or problem.)

RAP began in 1983 with a series of health-seeking behaviour studies at the household level, funded by the United Nations University. The first series of studies was conducted by the Institute of Nutrition of Central America and Panama (INCAP) in three Central American countries. Traditional anthropological methods were adapted and simplified and became known as RAP.

The anthropological techniques used in RAP include:

- limited participant observation
- direct observation
- informal conversation
- ethnographic interviewing of key-informants
- survey interviewing

Different community group meetings (church, women's, school, cooperatives, committees) can also be used to obtain information.

While emphasis is placed on qualitative information, the value of combining quantitative and qualitative techniques is also recognized.

The name RAP is an acronym for rapid assessment or rapid anthropological but it

was also chosen because it conveys some characteristics of RAP activities:

- *RAP is rapid*

With RAP it is usually possible to make an assessment after two to six weeks of fieldwork, depending on the magnitude of the objectives. Most delays have occurred during the report writing phase.

- *RAP means talk or conversation*

The name RAP can convey the need to talk and have direct contact with people.

- *RAP is focused*

Without disregarding the holistic view of the society or culture under study, RAP focuses on a specific topic or problem. This makes it possible to employ limited participant observation rather than complete cultural immersion while the anthropologist attempts to get a complete perspective of a specific problem.

- *RAP is action-oriented*

One of the goals of this type of assessment is that it should lead to an improvement in the lives of people involved. Because this orientation is new to many researchers, more thought needs to be given on how to bridge the gap between RAP results and action.

- *RAP is low cost*

Research activities using RAP require less material and human resources than other types of research.

The Uses of RAP

RAP studies have been used for different purposes:

- *To help design a program or specific part of a program.*

For example: A private voluntary organization (PVO) in Guatemala, whose activities have traditionally not been in the areas of health and nutrition, wanted to expand their work to include child survival activities for participants of their program. Their staff conducted a RAP study to identify local health resources and needs, existing local knowledge, and attitudes and practices in regard to health matters (diarrhoeal diseases, infectious respiratory diseases, vaccination and feeding during pregnancy and breast feeding). Personnel itself was a part of the study as the director and coordinator of the program discussed with them their knowledge and practices in regard to child survival and their reaction to the proposed new child survival component. The information was used to predict problems of personnel desertion if staff was made to take on added responsibilities.

This information, along with quantitative data collected on health and nutrition in the communities, was then used for program planning.

- *To assist the design of surveys*

Before a national survey on maternal and child care and nutrition was conducted, the information provided by RAP studies regarding local taxonomies of diarrhoea and obstacles to vaccination was found to be important. RAP studies identified popular concepts and definitions and determined the appropriate wording for questions included in the survey.

- *To provide information for the design and testing of community education activities and materials*

RAP points to the need to obtain information from the community and to provide better and more culturally appropriate information to the community. Researchers take information obtained from RAP studies (for example, beliefs and practices concerning diarrhoeal-related illnesses and infant and child growth) and use it in the design and production of educational material. RAP can also be used to test the educational material and evaluate its use in the community.

• *To improve the effectiveness of a program during its implementation*

A RAP study carried out during the implementation phase of a program should point to changes, or to new activities that could be undertaken to improve its effectiveness. The recommendations must then be translated into action. Although this is the main purpose of RAP, it is the most difficult to accomplish.

For example, recommendations from the health-seeking behaviour studies typically took the following form:

- Clinic hours: the health post schedule should be changed to make it more appropriate to life in the community. Ideally, it should be open in the evenings, since the men are back from the fields and the women have finished their chores.

- Knowledge of traditional beliefs: The health post personnel should be aquainted with traditional concepts of health and illness.

Obviously, there is a missing link between these recommendations and the specific actions needed to bring the changes into effect. The contention here is that RAP fits appropriately within the diagnostic phase of operational research and that operational research should follow recommendations in order to improve program effectiveness. Ideally, after providing recommendations, anthropologists should become involved in the subsequent research to determine how the recommendations, once put into action, make a difference in program operations.

For example, after determining that the community resorts to other traditional and/or popular health resources, and recommending they be involved in the child survival program, an operations research activity could be undertaken to train this type of personnel.

• *To evaluate a program after implementation*

RAP studies have been conducted as a qualitative component of the mid-term and final evaluation of projects. For example, during the evaluation of a PVO child survival program, a two week study of this nature included: discussions with personnel from the Ministry of Health (MOH); key-informant interviews with mothers who were the principle target of the program; and focus groups with voluntary community health workers trained under the project.

In order to assess the program's impact on health, quantitative information, which was gathered by means of a survey and nutritional assessment, was required. However, the RAP study provided important information on the attitudes of MOH personnel in regard to: the PVO's activities in general and the activities of this program in particular; mothers' understanding of the program; mothers' practices and some of the reasons behind them; and the experiences, comments, and recommendations of the program volunteers.

The above examples indicate how RAP can be used in the area of maternal and child health; but it can also be applied to the area of food and nutrition. RAP can be used to detect local conditions, problems and needs, before, during and after a program is put into place. RAP can also be used to make nutritional messages more culturally appropriate.

At INCAP, RAP studies have been conducted on the economic and cultural determinants of infant feeding. Basic information on food availability and accessibility, breastfeeding, weaning, infant feeding during and after illness, and perceptions of the nutritional impact of diarrhoea has been obtained through RAP studies using ethnographic interviews and focus group discussions. INCAP is often asked to teach RAP techniques to professionals and program personnel. Doing a RAP study is no guarantee

that a program will be successful; but a commitment towards the community can help to make it successful. So, very early in the training, it is important to clarify two things:

- Need for the information: who needs the information? Is there an actual need for this type of information or is it sought only because it is fashionable to conduct a RAP study?
- Technical content or objectives: what is the aim of the project; what needs to be taught, evaluated or changed?

Once these questions are answered, RAP training can be started.

RAP Training

The training sessions focus on six areas:

- *Type of information and informants required:*

What questions should be asked and from whom; what and who should be observed and when? Creativity is emphasized - it is important to go beyond obvious questions and informants.

- *Techniques used in gathering data:*

Which techniques are appropriate to collect the type of information required? What are the advantages and limitations of each technique? Creativity is also necessary in the application of techniques. For example, role playing could be used in a focus group session on the interaction between healthpost personnel and healthpost users, or cooking could be part of a group discussion on local recipes.

- *Data gathering instruments:*

Specific instruments for observation and interviewing are developed on the basis of what information is required and who the informants will be. Although sample guides such as the ones included in the RAP manual are often provided, it is important that personnel from each program develop their own instruments for gathering data. By doing so they can determine what information is needed and the reasons why it is needed.

- *Techniques for recording and organizing data:*

Detailed note taking and note organization are discussed. It is emphasized that while quantitative reseach is expressed as numbers, qualitative research is not. Therefore, it is necessary to accurately record observations and conversations with informants.

- *Analysis:*

In this type of research, analysis is viewed as a spiraling process that starts during the data gathering period as the researcher asks informed questions and organizes data. Descriptive analyses are discussed in detail in the RAP field guide.

- *Report writing:*

Providing brief, specific answers to technical questions is emphasized. Various options for presenting findings are also discussed. Again, creativity is stressed. For example, if community health personnel have limited writing skills, a tape recorder can be used to make an oral report.

One concern that has been raised is the question of who can learn and conduct RAP. Ideally, anybody can, and a simplified manual for community health workers is being compiled (Hurtado and de Palma 1989). However, some individuals, due to their previous training, cannot or will not adopt - and sometimes are even opposed to - this community-based approach. It has been necessary to identify these individuals and decide on the appropriateness of their participation in such an assessment.

Participatory Research and RAP

Participatory research goes hand in hand with community participation and entails getting the community actively involved in

the research process. There are however, different types and levels of community involvement. At one level, RAP studies are wholly participatory in nature, and at another they are only partially participatory. The most involved approach is one in which the community takes an active decision-making role by defining and analyzing the problems and deciding on the solutions. The supply of information is of central importance for the decision-making process and is obtained through participatory research.

RAP is participatory in the iterative nature of its questions. Unlike quantitative (survey) research which is linear, progressing from questions to answers to analysis, in qualitative research informants' answers are the basis for other more culturally relevant questions. In this way, community members participate in outlining what kinds of questions are asked. The use of the local language of the informants can be an expression of local concepts and questions are based on those concepts. It is the descriptions given by the community itself in its own language that is analyzed rather than responses to categories pre-established by the researcher.

However, in most instances, RAP studies have been conducted when organizations and agencies are already committed to a determined type of program. In this context, community participation is seen as the process of involving beneficiaries or users (not the community at large) in the design and implementation of specific programs. Thus, this is a limited type of participation.

RAP can be effectively used for community participation in research. Researchers have started to promote RAP as a set of participatory research techniques that health workers can use to learn more about their community's health and other problems, to assist them in planning their activities.

Conclusion

The challenge for the future is to bridge the gap between assessment results and analysis and actions to improve the lives of the people involved. Depending on how this challenge is met, it will be said of RAP that it "offers so much and delivers so little" or, alternatively, that this community-based approach is a valuable means for assessing and analyzing problems and determining what actions are needed to help solve them.

A Sociological Approach to Assess Community Nutrition Problems

Aida Hubeis is a professor in the Faculty of Agriculture, Bogor Agricultural Institute, Bogor, Indonesia.

This paper will present some of the findings of a community nutrition study I conducted in the early 1980s, in the West Javanese village of Cipari. The focus is on the importance of examining gender, class and socio-cultural variables when studying nutrition problems.

There have been many studies conducted by nutrition scientists and health professionals on food consumption and on the relationship between nutritional status and health. In some studies, information as detailed as nutrient intakes by age, sex and job have been gathered. Economists have placed much emphasis on income variables, but little on non-economic variables in analyzing patterns of food consumption. Yet, much less attention has been paid to the totality of economic, familial and social variables that affect food intake. There is a need to know why people choose the food they eat, how food habits are established and how these habits are modified. Moreover, we need to know who is responsible for the various activities to be performed along the family food path. It is suggested that an anthropological study, with a holistic approach, is best for gaining an in-depth understanding of these aspects (Epstein 1979; Epstein 1982).

Rather than relying on survey methods and questionnaires, it was felt that investigation of the multi-dimensional nature of malnutrition would best be approached by using a number of different study methods. The methods used in this investigation are as follows:

• *Census*

A census, which included every household in the village, was used to get a full picture of the community and to provide the basis for the compilation of a stratified random sample. Households were classified into three strata, using the rice equivalent per capita per year method:

- Strata I - households with an expenditure of more than 320 kg. rice
- Strata II - between 240 and 320 kg. rice
- Strata III - less than 240 kg. rice

• *In-depth Inquiries*

In-depth interviews were conducted not only to gain insight to complex socioeconomic and cultural phenomena but also to pursue specific subjects in greater detail. To do this, a sample of 20 households was chosen randomly from each household stratum. Thus, the sample consisted of 60 households, a representation of about 16 percent of all village households. However, for studies on the nutritional problems of balita (children under five), all balita in the village were included in the research.

In-depth interviews began with a general question and gradually became more focused to obtain specific information. The data was usually gathered in some type of chronological order.

• *Case material*

Case studies of individual life histories were undertaken to show how attitudes develop over time. This kind of detailed information is useful when investigating any phenomenon about which little is known, such as food distribution among household members - who eats what, with whom, under what conditions, how much and how often (Wiseman and Aron 1970).

• *Participant Observation*

Periods of personal observation were made to increase the reliability of data collected on household budget, and food purchasing, preparation and distribution activities.

• *Anthropometry*

Anthropometric techniques were used to assess the nutritional status of all children under age five.

• *Retrospective Recall Methods*

The retrospective recall method was used at different times for different activities and purposes, established on the basis of an exploratory study of 20 households in order to field-test methods.

• *Data Analysis and Presentation*

The presentation is a synthesis of the quantitative and the qualitative approach. The quantitative data shows the statistical pattern of each subject; the qualitative material offers explanations as to why certain patterns occur. These two sets of data complement each other and represent a body of meaningful data.

The Community

Situated in the Hill of West Java, Cipari has a population of 1,653 people living in more than 350 households. All inhabitants are Moslem, although Cipari still falls within the Sundanese tradition. Like most other Javanese villages, Cipari faces the serious problems of increasing population and land shortage. About 59 percent of the population is within the working age group (10-54 years) and women comprise half of this potential work force. Balita and children of school age (6-14) make up 30 percent of the total population.

The infant mortality rate in Cipari is high. The results of this study showed that malnutrition in balita was prevalent, particularly in children less than three years of age. Malnutrition among girls was more common than among boys, a finding closely related to the observed distribution of food among household members which is biased in favour of boys.

Of the women involved in the study, 23 percent were underweight and malnourished. Of the balita involved, 30 percent suffered from nutritional deficiencies, and 58 percent of those were girls.

This stems from the fact that throughout their lives, women are forced to observe many food taboos that prevent them from eating a fair share of nutritious foods.

The Food Path

Economic and seasonal factors are important influences on food consumption. However, it also is necessary to consider cultural attributes, age, sex and social rank. Women have two roles to fulfil: income-earner (seen as directly productive work) and housewife (indirectly productive work). Women's most important domestic tasks are food-related, because food is the most important resource distributed among family members. The most important fact to be considered in this context is the generally accepted role of woman as the decision-maker or gatekeeper of household food distribution. All this is related to the roles performed by each woman in her family. Accordingly, analysis should not be limited to focus on women alone but also on some of the external factors which

influence their domestic roles and, in turn, affect nutritional practices.

Examining what women do in their roles as "family guardians" illustrates how and why the societal expectations of women as domestic workers differ from reality. The following discussion is divided into three sections: activities related to food preparation; intra-household food distribution; and dietary patterns.

Food Preparation Activities

Before food is eaten, there are many activities that need to be completed, and which can affect food intake. Crops must be grown, food items transported to markets, items bought or gathered, firewood collected, water fetched and ingredients washed and prepared.

The nearest town market to Cipari is seven kms. away and it takes two hours to walk there. The findings on shopping in Cipari differ from other accounts which argue that, in low income communities, it is predominantly men who do the shopping. In Cipari, the poorer men are little more involved in shopping than the rich. The reasons are not simply economic but also religious and cultural.

However, among the middle income families, shopping responsibilities are carried out equally by men and women, as most of them are involved in daily small trading. Many of these families run a small stall in their homes and the division of labour between genders is necessary and profitable.

Collecting firewood, leaves and carrying water are all necessary preliminary activities for cooking. In the richer families, females do more gathering than men; in the middle and poorer families, it is often the men that do the gathering. This can be explained by examining where firewood gathering takes place. In richer families, women usually collect firewood from their own fields close to their home, but middle income and poor families do not have much land and must travel greater distances to gather wood. In these families it is the men who perform this heavy task.

Cooking is mainly a woman's task in all strata. Female members (mothers, daughters, or grandmothers) in all households are primarily responsible for both the preparation and the distribution of food. If a man gets involved in cooking he does so by choice rather than duty.

Intra-household Food Distribution

Most Cipari households say they consider it of primary importance to feed their children first. However, the lower the stratum, the fewer actually do so; 64 percent among the richest, 48 percent of the middle and 40 percent among the poorest. The inverse holds true for the fathers eating first; 36 percent among the richest, 52 percent for the middle and 60 percent among the poorest. Only the poorest differentiate between boys and girls; 58 percent of them give preference to boys in food distribution.

They justify this by explaining that boys are expected to work harder than girls and they therefore burn up more energy; they are also expected to be the future bread winners for the households. Both upper strata treat boys and girls equally in terms of main food arrangements. But in terms of the more nutritious food items, there is a tendency to give preference to males. They are entitled to get a greater share of the food because they are or will be the breadwinners. As a result, women eat least and last. This effect is reinforced by the cultural tradition held in which women lack selfishness and are proud to be regarded as spearheads of their traditional culture.

Dietary Patterns

About 95 percent of Cipari households consume two meals daily. Only the richest households and a few of the middle income households (five percent) can afford to have three meals a day. The majority of Cipari households (67 percent) eat regularly, especially the evening meals. Household composition determines who eats with whom. Food distribution within the family is also linked with gender and age.

Filial dietary pattern

As already mentioned, balita suffer from nutritional deficiencies; this is closely related to the distribution of food among household members.

Older children consume a greater share of household food. This can be explained by the fact that most children sit together while eating; the elder ones can finish their share quickly and thus ask or obtain a little bit more. To some extent, the mother herself, as the person who distributes the food, also favours the elder children, assuming that they expend more energy and thus need more food. Small girls are socialized into dietary norms by being told:

"You have to eat very slowly and politely, or people will say you are greedy."

Thus younger girls cannot compete in the struggle for more food with boys even if they are of the same age. It is only in the higher strata that children are able to obtain a better variety of food items.

Parental dietary pattern

Discriminatory food distribution applies to adult women just as much - if not more - as it does to the younger generation; women get less food than men. The differential access to food between husband and wife coincides with their analogous kinship relationship. In Sundanese societies, of which Cipari is a part, a husband is usually called akang or kakang (elder brother) while the wife is called nyai (little sister). Thus the husband-wife relationship is seen as one of a elder-younger sibling. As the younger one, the wife always has to pay her respects to her husband in any circumstance, including the allowance of food privilege to her eldest brother.

Comparison of filial and parental dietary patterns

In general, food distribution favours males. Only salted animal foods and leafy vegetables are shared equally, as they are regarded as routine foods in Cipari households. Almost all households, whether poor or rich, always prepare these two items for their daily food. The difference between the strata is reflected only in the kind or quality of the salted fish consumed. There may be another cultural explanation for this. There is a saying:

"If you marry a Sundanese woman, you only need to give her a chilli and let her go to your vegetable garden."

This implies that vegetables and spices are all that Sundanese women really want.

Dietary patterns in Cipari are not only discriminatory on the basis of age and sex but also reaffirm the differential status of individual family members and their access to food. The unequal household distribution of food becomes exaggerated during the slack season when food is scarce. This scarcity is of great importance because it is recurrent and frequently acute.

Conclusion

Economic, seasonal, cultural and societal variables all work together to influence community nutrition. It is not always easy to identify the reasons why certain problems, attitudes and practices exist. The greatest insights can be gained by taking a holistic

approach, relying not only on quantitative research methods but also exploring the available range of qualitative methods. Studies should also consider the importance of the food path from production to intake, since there are many activities which need to be completed that influence the quantity and quality of food available to members of the household.

Assessing Nutrition Problems in India using Rapid Rural Appraisal Methods

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This paper briefly summarizes an RRA conducted in the Parbhani district of Maharashtra, India. A complete description of the study is available elsewhere (Kashyap and Young 1989). Our aims were to:

- Evaluate techniques of RRA as a basis for community assessment, nutrition planning, and program design;
- Generate insights into factors that influence the nutritional status of rural inhabitants;
- Recommend interventions to improve nutrition in the targeted communities, both short and long term; and
- Identify other problems that demand research in the region.

We worked in collaboration with the Foods and Nutrition Department of the Marathwada Agricultural University in Parbhani. Two nutritionists, with master's degrees, were hired as field assistants. They both had experience in community research and were familiar with the chosen communities. They were encouraged to interact with members of the community and to obtain perceptions on various issues. They recorded their observations or field notes and collated some data. The RRA evolved from a preconception of the factors affecting the nutritional and health status of rural communities (Fig. 1). The preconception reflected inputs from specialists in nutrition, sociology, agricultural sciences and health. A questionnaire was designed as a guide to the interviewers but was not strictly followed.

Study Area

Parbhani district, which lies along the Western drybelt of India and in the zone of "assured" rainfall (averaging 70 cm annually), is divided into seven subunits, called 'talukas', of which three were covered by this study.

We consulted district authorities to select villages that were far from urban influence and from main road connections. All efforts were made to reach the poorest families in the interiors or remote corners of the villages. None of the villages was fewer than 30 km from the nearest town; some were up to 55 km away.

A total of 200 families were covered in this study and quantitative data was collected from 110 families. Secondary data from the region were obtained on health issues, food and agricultural issues, government programs and subsidies from the relevant regional government offices. Heads of households (predominantly men) and other adults (women) participated in the discussions. We encouraged group discussions to elicit collective views, especially those related to cultural beliefs, taboos and feeding habits.

In depth information was sought about agricultural patterns, food habits, storage and marketing practices, role of women in the family economy, cultural beliefs, taboos, and feeding practices. We instigated discussions about the food and health programs of the government in the region, recorded observations regarding household and environmental sanitation, source of drinking water, personal hygiene, and access to mass media, especially the radio and television.

Study Duration

The study lasted nine months, and was divided into three phases:

- *Planning* (two months)

During this phase the educational institution agreed to collaborate and assisted in selection of field assistants; and the villages for study were identified.

- *Implementation* (four months)

Secondary data on the villages and the region were collected; specialists from various fields in the region were contacted about factors affecting nutrition in the villages; a questionnaire was prepared; and the rural appraisal (six weeks) was conducted. Often, discussions were held while community members were carrying out daily chores (agricultural activities or those related to the household.)

- *Information analysis and report writing* (2 months)

The data, observations, and opinions gathered from the villages were supplemented, where possible, with information about seasonal variations in labour intensity, for example; and analysis was written.

Findings

The villages visited typically had houses with mud or stone walls, with thatched or tiled roofs. A few houses were made from bricks, and these belonged to rich farmers or money lenders. The houses in the village were distributed haphazardly, they had poor ventilation, with only one door and sometimes no windows. The lanes were muddy and became slushy with one shower, making it difficult to walk through the village. A common mode of transport was the bullock cart; however, most people continued to travel by foot.

Of the 110 families interviewed, 68 were land holders. The village economy was agrarian with traditional patterns of cultivation. Every household depended on agriculture, either directly as a landowner or indirectly as a labourer.

Agricultural practices

Major crops of the region were sorghum, green and red gram, safflower and sunflower. Vegetables were grown only in season by some large landholders. The small landholders, in addition to working on their own land, hired themselves out to large landholders, and many rented implements or formed informal partnerships with other farmers who owned agricultural implements. Such associations often included working for wages.

Crops for food or cash

The economy seemed to be shifting from food to cash crop production, and the marginal farmers were in a dilemma. Encouraged by the profits being earned by large farmers, many marginal farmers indicated a desire to shift to cash cropping, mainly cotton and oilseeds, but, unlike large farmers, they would not be able to grow cash crops and produce enough food grains to meet household needs. Also, they worried that their wages, which traditionally were partly cash and partly grains, would become solely cash and would increase their dependence on market food prices.

Women labourers indicated that many of them had been displaced from their tradition-

al jobs of threshing and winnowing because of the introduction of mechanical threshers by large farmers. Furthermore, the farmers then rented the equipment at nominal prices to smaller farmers. The impact of this loss of income, especially on the landless population, needs to be explored.

Marketing

In the region, production varied greatly with rainfall, and the landless were the most vulnerable during bad years because they depended on daily wages for survival, and work opportunities dwindled during such periods.

The large farmers usually sold produce in larger markets in the nearest town, but the small farmers sold locally and, often, soon after harvest when prices were lowest. The landless depended on the market for both food and non food items and could afford only small quantities, making them most susceptible to price fluctuations. Loss of wages for the landless would mean no purchasing power and, ultimately, increased malnutrition, illness, and inability to take advantage of income opportunities.

Storage practices

Most of the farmers stored sorghum grain for family needs and sold only the surplus. They used pesticides on grain stored for seed but not for consumption. All grain was stored within the households, the method varying by quantity stored and, hence, socioeconomic status of the family. The landless had no storage systems. The landholders commonly used gunny sacks (purchased locally), cane baskets and clay pots made locally, and sometimes metal bins for storage.

Gunny sacks, used mainly to store the staple grains, were purchased from a shop owner, filled, and stacked in the corner of an inside room. This method was popular among large farmers who considered it economical both in cost and in space. As sacks were emptied, more storage space became available.

The traditional system of storing staple grain was the most popular: "kanagi," which is a mud-plastered bin, made from cane. The bins varied in size depending on the family status, with capacities from 400 to 800 kg. Generally, the bins were not sealed and were simply covered by a sheet of wood or any convenient material.

Smaller quantities of food items like pulses, oilseeds, and sometimes cotton, were stored in a series of mud pots, stacked in decreasing sizes. This system of stacked pots for storage is called "utrandi." The design is such that the top pot fits perfectly into the mouth of the lower one, covering it. Even though the system is not airtight and no pesticides are added, grains are stored for up to 8 months.

Interestingly, utrandi belonged to the womenfolk and men traditionally were not allowed to handle this system. Women exploited this traditional advantage, and often used the utrandi as a hiding place for personal items or money. The hidden money proved useful in times of scarcity or when a money lender demanded immediate repayment of loans. The size of an utrandi is directly related to the family's financial status.

Metal bins were also used to store small quantities of grains, often dehusked pulses or sorghum flour. However, they were not very popular.

Even though no pesticides were used to store grains in households, storage losses quoted by most farmers varied from nil to 15 percent. Although infested, the grain was considered fit for human consumption unless the insects outnumber the grains. Lightly infested grains were immediately washed and thoroughly sun dried. When infestation was high and most of the kernels were eaten, the grains were used as animal feed and thus not considered lost.

Rural women and infant feeding

All household chores were performed by women, with little assistance from men. Assistance could be obtained from other female members of the family, children, and neighbours. Activities performed by women included collection of water and fuel; cleaning; washing clothes and utensils; food preparation; primary processing of food grains; food service and handling; in addition to wage earning activities. Wage-earning activities were especially important for families who engaged in marginal farming or who were landless. The women worked from before dawn to much after dusk.

Information obtained regarding infant feeding indicated that breast-feeding was universal, and the duration varied from one to three years, sometimes even longer. Infants always accompanied their mothers to work, often along with another sibling, at least until they were a year old. Commercial infant milk and weaning formulas had not gained popularity in any of the villages. Among the various reasons, the prohibitive cost and unavailability in the local market were predominant. However, biscuits were often purchased for children, even by the poor families.

There is a common notion that wage-earning mothers generally discontinue breast-feeding. This has been a major issue of concern in the debate on "the effects of maternal employment on child nutrition status." However, the most frequently quoted reason for discontinuation of breast-feeding was the next pregnancy, not wage-earning activities.

No special foods were prepared for young children; people believed that a child with teeth can eat adult food and has no special food needs. Moreover, no special food intake was considered necessary during pregnancy and lactation. In fact, women intentionally reduced their food intake to reduce the size of the newborn, and, thus, avoid difficult childbirth.

Most women from poor households began work within a fortnight after childbirth. During illness, restricting food and fluid intakes, especially in children, is not uncommon.

RRA in Nutrition Planning

At the conclusion of the study, all objectives were accomplished. RRA did provide a framework for interaction between nutrition researchers and the malnourished; it was a means for identifying target groups, determining the interrelated causes of malnutrition, and recommending priorities for intervention.

The Khon Kaen University group in Thailand has suggested the use of multidisciplinary teams of researchers to conduct RRA (Samart 1987). However, our experience suggests that such teams are not always necessary or feasible. To obtain information rapidly at substantially low cost, one-person or two-person teams using RRA are effective (Table 1.) Nonetheless, inputs from disciplines such as agriculture, health, sociology and marketing are imperative.

Recommendations

General recommendations from this experience are that program planners and others who need to assess nutrition problems:

- Combine RRA methods with selected data to generate an understanding of the causes of malnutrition to formulate policies acceptable to the intended beneficiaries.

- Share experiences in RRA with others, to enhance and improve the methodology.

- Work to clarify questions related to the optimum size and composition of nutrition RRA teams, and the duration of RRA.

Specific recommendations for government, to ameliorate nutrition problems in Parbhani, are to:

- Promote increased production, availability, and consumption of coarse grains. If coarse grains were more widely available in fair-price shops and their production subsidized,the poor would benefit.

- Investigate the impact of the shift from food-grain cropping to cash cropping, with particular emphasis on its economic impact on the region, impact on women labourers, and effect on food prices.

- Focus attention on maternal and child-feeding practices and the impact of traditional practices on nutritional status.

- Enact policies designed specifically to alleviate nutritional problems among the marginal farmers and the landless families.

- Use the mass media to disseminate information on nutrition and health.

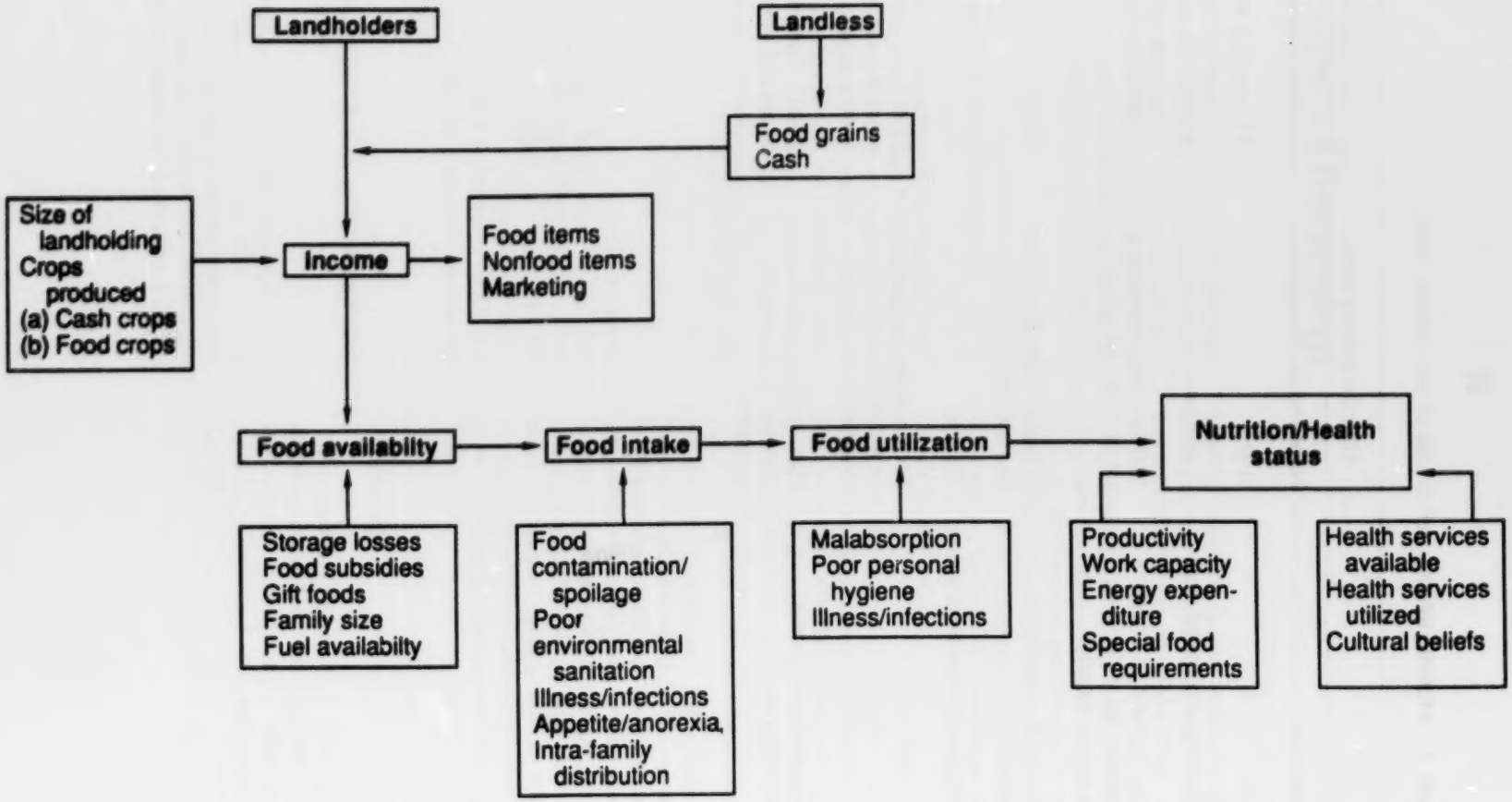

Fig. 1. Factors affecting the nutritional and health status of the rural community.

Table 1: Multidisciplinary versus one or two person teams.

	Multidisciplinary team	One/two-person team
Team size	Needs up to 20 experts	A maximum two members
Cost	High	Relatively low
Arranging accommodation	Problematic	Easier
Time required to organize schedules for field work and report writing	Difficult task requiring a lot of time and effort	Relatively easier task
Community confidence generation	Difficult (large teams can be intimidating)	Easier
Selection of team members	Difficult	Easier (?)
Expertise	Each member in his/her own discipline of specialization	Must have expertise in areas other than that of specialization
Secondary and primary data collection	Each member gathers information in area of specialization	Need to gather information in area of various subjects

Summary Discussion

Several key areas were covered in the brief discussion following the presentation of papers: standardization of the methods; the uses and limitations of RRA and RAP in nutrition; training; community participation and empowerment; and nutrition program evaluation.

Standardization of the Methods

Previous applications of RRA in agricultural research have not resulted in the emergence of a uniform method. Indeed, standardization may be counterproductive to the objectives of RRA. The techniques have responded to the difficulty of establishing research which is relevant to field conditions. In the agricultural sector, researchers recognized the importance of determining needs and constraints at the grassroots level before designing research programs.

In pursuing scientifically rigorous research programs, scientists have forsaken dialogue with rural people. RRA and RAP are not substitutes for dialogue nor panaceas for development. Thus, the elaboration of internationally sanctified methods for RRA and RAP - even if this were possible - would not be appropriate.

Uses and Limitations of RRA and RAP in Nutrition

The emphasis in agricultural applications has not been on employing RRA to fully answer questions but rather to refine questions through observation and community participation. Based on the results of RRA, a specific research agenda relevant to real problems can be formulated. RAP has been put to similar use in the health field.

RRA and RAP have also been used by local government to obtain reliable information to assist in the selection and design of agricultural and health interventions. Based on such research, three categories of recommendations should be feasible: immediate action; actions required within a two-year period; and long-term needs.

RRA and RAP practitioners must be prepared to conduct field work and produce a report within a specified time - usually days or weeks. By using surveys which last several months, the essence and objectives of RRA/RAP are lost.

In the nutrition context, RRA represents a form of situational analysis. It may complement surveys which aim to determine the magnitude of malnutrition by indicating how to deal with the problem and highlighting the existing constraints. Some quantitative data collection may be incorporated in RRA; the balance between qualitative and quantitative research must be determined on a case-by-case basis.

Training

To ensure the objectivity of RRA and RAP, and the reliability of results gained using the techniques, practitioners who are well trained, experienced and motivated are required.

There is a view that only trained anthropologists are equipped to provide cross-cultural objectivity. However, as Chambers (1981) has noted, rapid procedures are characterized by subtle judgment calls. These may involve defining "optimal ignorance", "appropriate imprecision" and reasonable confidence levels for data collected. In other words, researchers must focus their appraisals on key issues and avoid allocating time to superfluous areas. Reporting on an RRA training workshop recently held in West Africa, Freudenberger (1990) notes that the definition of "optimal ignorance" requires, firstly, keen analytic capabilities and good intuition to determine relevant issues and, secondly, a certain sense of discipline to limit the RRA to those issues. A further requirement of RRA practitioners is the ability to communicate comfortably with a wide range of potential informants.

Both analytic and communications skills may be learned through appropriate training and experience. Nevertheless, as Freudenberger points out, "novice teams" should be careful to include a mix of practitioners with analytic strengths, on the one hand, and communications skills, on the other. There is also a need for continued reinforcement and guidance of RRA activities until practitioners develop the self-confidence and experience to implement their own quality control.

As yet, there have been few training courses in RRA or RAP available to health and nutrition researchers in developing countries. However, there is growing interest in establishing such courses, and it is likely that a range of training opportunities will soon emerge.

Community Participation and Empowerment

RRA and RAP can stimulate communities to analyze problems and to assist them in planning strategies to confront these problems.

Experience from the Philippines indicates that RRA can promote community participation and empowerment. Participation may not be spontaneous; but RRA can be employed to develop degrees of community organization which lead to empowerment. For example, core groups of individuals may be formed - teams to seek out information, elaborate a conceptual framework and classify problems and priorities. The pursuit of such self-reliant approaches requires effort and patience, but it can lead to a high degree of community development. People become motivated once inhibitions are removed and there is a realization that problems may be confronted through certain actions.

In cases where grassroots improvement necessitates policy change at the provincial or national level, RRA may be the initial catalyst culminating in community empowerment to lobby for such change.

In view of the expectations that RRA/RAP may generate within the community, it is important that the techniques be used in conjunction with ongoing or planned action programs. not as isolated research or academic exercises. Non-governmental organizations working at grassroots levels would be appropriate users of RRA and RAP.

Evaluation

RRA and RAP are increasingly employed to evaluate health and nutrition programs funded by donor agencies. Program evaluations have been costly. But RRA and RAP studies require fewer people and often the findings are more beneficial in program planning. In effect, the techniques distil out key operational issues sometimes overlooked or clouded in heavily quantitative surveys. Program follow-up is also more likely to respond to the perceptions of the target group. Be-

cause RRA/RAP targets identified needs and wants, programs are more easily implemented and accepted in the community.

Conclusion

RRA and RAP techniques are complementary to conventional, quantitative methods used to assess health and nutritional status and explore the causes of community food and nutrition problems. These techniques may represent a specific and important step in the development planning process. Their importance lies in their ability to:

- generate an understanding of the causes of malnutrition and poor health, community perceptions of these problems and community participation in confronting them;
- facilitate interdisciplinary approaches to development problems;
- enlighten researchers on community issues they did not previously comprehend; and
- provide new insights for researchers normally accustomed to discipline-oriented work.

Current experience therefore demonstrates that rapid appraisal techniques are valuable components of community nutrition and health programs.

References

Brown, K.H. and Bentley, M.E. 1987. Improved Nutritional Therapy of Diarrhoea: a Guide for Planners and Decision-makers involved in CDD Programs. Washington: Academy for Educational Development.

Chambers, R. 1981. Rural poverty unperceived: problems and remedies. World Development, 9, 1-19.

Chambers, R. 1986. Rural Development: Putting the Last First. London: Longman, 246 pp.

Epstein, T.S. 1979. Third Edition. The Craft of Social Anthropology. Delhi: Hindustan Publishing Corporation.

Epstein, T.S. 1982. Women's Roles and Population Trends in the Third World. London: Croom Helm.

Freudenberger, K.S. 1990. Rapid rural appraisal and post-production research in West Africa: the case for RRA with a training case study. International Development Research Centre Report, 20 pp.

Gibbs, C.J.N. 1987. Rapid rural appraisal: an overview of concepts and application. Proceedings of the 1985 International Conference on Rapid Rural Appraisal. Khon Kaen, Thailand: Khon Kaen University.

Grandstaff, S.W., Grandstaff, T.B., and Lovelace, G.W. 1987. Summary report. Proceedings of the 1985 International Conference on Rapid Rural Appraisal. Khon Kaen, Thailand: Khon Kaen University, 3-30.

Grandstaff, T.B., and Grandstaff, S.W. 1985. Report on rapid rural appraisal activities. Khon Kaen, Thailand, KKU-Ford Rural Systems Research Project, Khon Kaen University.

Griffiths, M., Piwoz, E., Farin, M. and del Rosso, J. 1988. Improving Young Child Feeding During Diarrhoea. A Guide for Investigators and Program Managers. Washington: PRITICH, 53 pp.

Hurtado, E., and de Palma, V. in press. Lo que todo trabajador de salud debe saber sobre la comunidad donde trabaja: una guia para el diagnostico comunitario en salud y nutricion de la madre y el nino. Institiute of Nutrition of Central America and Panama (INCAP).

Kashyap, P. and Young, R.H. 1989. Rapid Assessment of Community Nutrition Problems: A Case Study of Parbhani, India. Ottawa: IDRC - 274e, International Development Research Centre, 60 pp.

Khon Kaen University 1987. Proceedings of the 1985 International Conference on Rapid Rural Appraisal. Rural Systems Research and Farming Systems Research Project, 357 pp.

Khon Kaen University 1988. Rapid Rural Appraisal in Northeast Thailand. Case Studies. Khon Kaen, Thailand. Rural Systems Research Project, 164 pp.

Manoff, R.K. 1985. Social Marketing. New Imperative for Public Health. New York: Praeger Publishers, 293 pp.

Oakley, M. A. 1989. Community Involvement in Health Development: An Examination of the Critical Issues. Geneva: WHO, 73 pp.

Rahman, M.A. 1985. The theory and practice of participatory action research. In The Challenge of Social Change. O. F. Borda, ed. Beverly Hills: Sage Publications Inc., 107-132.

Samart, M. 1987. Rapid rural appraisal: experience at Khon Kaen University. Proceedings of the International Conference on Rapid Rural Appraisal. Khon Kaen, Thailand: Khon Kaen University, 282-298.

Scrimshaw, S.C.M., and Hurtado, E. 1984. Field guide for the study of health-seeking behaviour at the household level. Food Nutrition Bulletin 6 (2), 27-45.

Scrimshaw, S.C.M. and Hurtado, E. 1987. Rapid Assessment Procedures for Nutrition and Primary Health Care, Anthropological Approaches to Improving Program Effectiveness. Los Angeles: UCLA Latin American Centre Publications, 70 pp.

Scrimshaw, S.C.M., and Hurtado, E. 1987. Rapid Assessment Procedures for Nutrition and Primary Health Care. Tokyo: United Nations University.

Somnasaeng, P., Rathakette, P., and Ratanapanya, S. 1984. A study of natural food resources in northeast Thailand villages in the rainy season. Khon Kaen, Thailand, KKU-Ford Project: Khon Kaen University (in Thai).

Tandon, R. 1982. The interlinkages between primary health care and adult education. Convergence, Vol. XV, No. 2, 3-13.

Tripp, R. 1984. On-farm research and applied nutrition: some suggestions for collaboration between institutes of nutrition and agricultural research. Food and Nutrition Bulletin 6, 3.

Wiseman, J.P. and Aron, M. 1970. Field Project for Sociology Students. Cambridge, Massachusetts: Harper and Row.